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EXAMINER
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ART UNIT	PAPER NUMBER
2421	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

	Application No.	Applicant(s)
Office Action Summary	10/790,046	CHOI, MI AE
	Examiner	Art Unit	
	JAMES R. MARANDI	2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>13 August 2010</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>17-40,46-51,57-66</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06) **Office Action Summary** Part of Paper No./Mail Date 20101223

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/13/2010 has been entered.

Response to Amendment

2. This action is in response to amendment filed on 8/13/2010. Claims 17- 40, 46- 51, and 57- 66 are presently pending. Claims 1-16, 41- 45, and 52-56 have been cancelled.

Response to Arguments

3. Applicant's arguments with respect to claims 17- 40, 46- 51, and 57- 66 have been fully considered but they are not persuasive.

3.1. Applicant's failure to adequately traverse the Examiner's taking of Official Notice in the last Office Action, with respect to claims 20, 26, and 32, is taken as an admission of the fact(s) noticed.

3.2. In referring to prior art cited in the Office Action of 6/10/2010, applicant has introduced alternative abbreviations (3rd paragraph, page 16 of Remarks).

3.2.1. Applicant refers to Newell et al., "The ATSC Data Broadcasting Specification", Stanford University course CS 448-a material for Winter 2000 (hereinafter "Newell"), as *Newell I*.

3.2.2. Applicant refers to Newell et al., "Overview of The ATSC Data Broadcast Service Specification Version 1.0", Sharp/ Intel Presentation, May 6, 1999 (hereinafter "Newell'99"), as *Newell II*.

3.2.3. Applicant refers to Applicant's Admitted Prior Art, as reflected in applicant's disclosure ¶¶ [2] - [30], and Fig.1 (hereinafter "AAPA"), with *Applicants Related Art (ARA)*.

To ensure consistency, applicant is requested to refer to the prior art as it is indicated in the Office Action.

3.3. With respect to claim 17, Applicant states that he "***can not understand how the cited portions of Huckins are even relevant to the feature in question*** [without configuring a module for extracting a directory object or a file object to display the advertisement image]" (Page 17 of Remarks, 7th line from the bottom of the page).

To clarify the rejection, the Examiner has referred to Applicant's disclosure for guidance on the definition of "without configuring a module for extracting a directory object or a file object to display the advertisement image". The specification in ¶ [59] is contrary to applicant's cited limitation. ¶ [59] discloses that "the data sections are downloaded and <u>configured as a module</u>, and a file objects are extracted and provided to a specific application". Since this limitation was newly introduced in the amendment of 2/12/2010, as such it is subject to rejection under 35 U.S.C. § 112, first paragraph, as "New Matter".

For the application of prior art, the examiner has interpreted "without configuring a module ...", as meaning that there is no file set-up/ configuration (as required by the pointers/ tags disclosed by the system of Hamilton and Newell) which has been taught by Huckins. Huckins discloses (Figs. 3 and 5) how to utilize the

content (e.g. advertisement or any other content type) description and connection

information to decouple the content and its location address, thereby providing a

path to the location of the content (e.g. the IP address in Fig. 3, element 39). The

IP address provides the location of the file, and as such the receiving system

does not have to configure a module for extracting a directory object (as the file

is already present and available). Therefore Huckins discloses accessing said

content **without configuring a module for extracting a directory** object or a

file object to display the advertisement image. (See Abstract, Col. 5, line 51

through Col. 6, line 63).

Therefore, as cited in the Office Action of 6/10/2010:

Regarding claim 17 Hamilton discloses **a method of operating a data**

broadcasting system that executes a data broadcast under a client-server

environment (a digital TV network using MPEG transport streams, as in Fig. 1A,

with client STB and headend/ server transmitting/ serving information)**, the**

method comprising the steps of:

performing the following sequence of steps on the client device

while the individual data sections are being downloaded and extracted

(Hamilton inserts a signal to entertain the viewer while extracting/ downloading

the program the viewer is tuning to –channel was changed to- ¶[13]) ;

>>> **extracting advertising-image related data** (advertising is
>>>
>>> extracted from the local drive, or streamed through MPEG transport
>>>
>>> stream ¶ [15].)**, the advertising-image related data** is extracted locally,
>>>
>>> from transport stream, or internet.
>>>
>>> **downloading an advertisement image from the** local drive,
>>>
>>> transport stream, or internet ¶ [15]**; and**
>>>
>>> **displaying the downloaded advertisement image** (¶ [15]);
>>>
>>>
>>> **cancelling the step of displaying the advertisement image after all**

data sections of the specific application are downloaded and extracted by

the client device; ¶ [14], where the signal (advertisement) is terminated as soon

as the new program (channel) is available **; and**

>>> **executing the specific application on the client device** (the tuned
>>>
>>> program is displayed/ the desired application executed)**.**

Hamilton discloses that the signal to be displayed, in the event of a trigger such

as changing of the channel (¶ [14]), comprises static images, dynamic applets,

animation, and **<u>advertisements</u>** (¶¶ [16] - [19]). This advertisement may be

stored localy and/or delivered by the MPEG-2 transport stream (¶ [15]).

Hamilton computes the timing of the insertion signal (advertisement) as per Fig.
6, and insert an advertisement which is localy stored (known location) therefore
he is not explicit in providing a "**path**" to the advertisement ("**an advertisement
image path**" for locating and downloading of such advertisement **from the
server** and does not detail:

**downloading at a client device a data service table (DST) relating to a
specific application;**

**extracting information relating to the specific application from the
DST on the client device;**

**downloading at the client device and from a server, individual data
sections of the specific application based upon the extracted information;**

**extracting data from the downloaded individual data sections on the
client device;**

However, Newell discloses:

downloading at a client device a data service table (DST or as defined
by ATSC and Newell Service Description Table, SDT**) relating to a specific
application** (MPEG-2 transport is received at client device, e.g. STB. The SDT is
extracted from PIDs of the transport stream, 5th page, 1st Col., items 2 and 3;
Fig. 3, PIDx within MPEG-2 transport stream, see the NRT, PID, SDT
connections)**;**

extracting information relating to the specific application from the DST on the client device (information from SDTs are extracted through Taps, 5th page, 1st Col., items 2 and 3)**;**

downloading at the client device and from a server, individual data sections of the specific application based upon the extracted information (5th page, 1st Col., items 2 and 3)**;**

extracting data from the downloaded individual data sections on the client device; (as described in 4th page, 2nd Col., 3rd paragraph (Service Description Framework), through 6th page, Col. 1, first 3 lines, and Fig. 3. The NRT specifies network connections, designated in SDT, see dashed lines in Fig. 3, and as such specify the logical address/ **file system path** of the files/objects (e.g. advertisements) for locating and extracting the files, such as advertising image, or gaming applications, etc.).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton, with Newell's teachings in order to provide flexibility for locating files/applications anywhere in the network while providing access to various local and remote applications.

The system of Hamilton and Newell discloses how a path to the appropriate data broadcast is described via Associated Tag Descriptors (ATDs) {as shown in Newell's 4th page, 2nd Col., 3rd paragraph (Service Description Framework),

through 6th page, Col. 1, first 3 lines, and Fig. 3. As further demonstrated by

Newell the MPEG-2 transport streams are monitored for PIDs, from which SDT,

NRT, and PMTs are extracted, tapped ,and matched in order to separate

programs, broadcast data (advertisements or other applications) and interactive

data (advertisements, games, other applications). Taps are pointers to the data.}

The system of Hamilton and Newell further discloses associating resources, tags,

and applications (such as internet commerce), yet it does not provide an explicit

example of a URL/ Internet address points to the address of a file, e.g. "**an**

advertisement image path"), thereby not explicitly disclosing a downlaod of the

said file (advertisement) **without configuring a module for extracting a**

directory object or a file object to display the advertisement image.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g.

advertisement or any other content type) description and connection information

to decouple the content and its location address, thereby providing a path to the

location of the content (e.g. the IP address in Fig. 3, element 39) and accessing

said content **without configuring a module for extracting a directory object**

or a file object to display the advertisement image. (See Abstract, Col. 5, line

51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Hamilton and Newell with Huckins'

invention, in order to provide access to content location independent of any

specific/ proproatary filing system requiring time consuming configuration/ set-

ups.

3.4. With respect to claims 23, 29, 35, and 46, Applicant has not advanced any new

arguments and relies on the arguments presented for claim 17 which has been

addressed above.

3.5. With respect to claim 57, Applicant states that he "*cannot understand how the*

cited portions of Hamilton are even relevant to the feature in question [wherein

the step of extracting the second information is performed without processing

the first, second and third step]" (Page 18 of Remarks, 4th paragraph).

To assist the Applicant with the understanding of the rejection, the examiner

refers to the language of the claim as presented (highlighting the key areas):

Regarding claim 57, Hamilton discloses **a method of operating a data**

broadcasting system that executes a data broadcast under a client-server

environment (a digital TV network using MPEG transport streams, as in Fig. 1A,

with client STB and headend/ server transmitting/ serving information), **the
method comprising:**

receiving, at a client device, an MPEG transport stream **including a
first type descriptor** (program selected by the viewer being downloaded) **and a
second type descriptor** (Hamilton's 2[nd t] type descriptor is a signal, triggered by
e.g. channel change, which launches the advertisement);**;**

extracting a first information (program/ data service selected) **referring
to the first type descriptor and extracting a second information** (e.g.
advertisement) **referring to the second type descriptor; and**

displaying the extracted second information (advertisement) **on a
screen prior to the extracted first information** (advertisement plays while the
program is being downloaded)**; and**

**wherein the step of extracting the second information is performed
by without processing** the first information fully (advertisement plays while the
program is being downloaded)**. See ¶¶ [13]-[15], and [32]-[40])**

As analyzed, the second program descriptor, signifying the advertisement,
triggers the showing of the advertisement, while the system is acquiring the selected
channel/ program, as disclosed by Hamilton.

Hamilton is silent on receiving at the client **a data service table (DST)** containing
descriptors, and

>> **wherein the extracting the first information includes**

>>> **a first step of receiving a plurality of data sections referring to the first type descriptor,**

>>> **a second step of configuring the plurality of data sections as a module, and**

>>> **a third step of extracting file objects from the module,**

However, AAPA admits that the receiver receives **a data service table (DST)** (¶ [17] containing descriptors (Applicant's Figure 2 contains the ATSC Standard, as supplied to the applicants on 2/14/2008, where by content descriptors, e.g. *descriptor()*, are provided, see also pages 32-33 of the said standard), and

>> **wherein the extracting the first information includes** (Fig. 1)

>>> **a first step of receiving a plurality of data sections referring to the first type descriptor** (Fig. 1, SECTION DSI, DII, DDB... elements)**,**

>>> **a second step of configuring the plurality of data sections as a module** (Fig. 1, MODULE, DSI, DII, …. elements)**, and**

>>> **a third step of extracting file objects from the module** (Fig. 1, OBJECT, DIR, DIR, …. elements)**,** See ¶¶ [20]- [30].

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton with the AAPA in order to take

advantage of the carousel capability of the ATSC standards and download

services methodically over limited bandwidths.

<u>As can be seen above, the advertisement (second descriptor) is extracted and

displayed independent of the program selected (first descriptor), and as such</u> **the step

of extracting the second information is performed without processing the first,

second and third step.**

As shown above, Hamilton in view of Applicant's Admitted Prior Art (AAPA) fully reads

on the claim as recited.

3.6. With respect to claim 62, Applicant has not advanced any new arguments and

relies on the arguments presented for claim 57 which has been addressed

above.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 17- 40, and 46- 51, and 57- 66 are rejected under 35 U.S.C. 112, first

paragraph, as failing to comply with the written description requirement. The

claim(s) contains subject matter which was not described in the specification in such

a way as to reasonably convey to one skilled in the relevant art that the inventor(s),

at the time the application was filed, had possession of the claimed invention.

4.1. Claims 17, 23, 29, 35, and 46 recite the limitation (<u>newly added</u> on 2/12/2010)

without configuring a module **for extracting a directory object or a file**

object to display the advertisement image, which has not been previously

disclosed by the applicant. Examiner notes that ¶ [59] of the disclosure is

contrary to applicant's amended limitation. In fact, ¶ [59] recites that "the data

sections are downloaded and <u>configured as a module</u>, and a file objects are

extracted and provided to a specific application". Furthermore, Figs. 1-6 are not

instructive as to the newly added limitation as indicated by the applicant.

4.1.1. Claims 18 – 22 depend on claim 17 and are so rejected.

4.1.2. Claims 24 - 28 depend on claim 23 and are so rejected.

4.1.3. Claims 30 – 34 depend on claim 29 and are so rejected.

4.1.4. Claims 36 – 40 depend on claim 35 and are so rejected.

4.1.5. Claims 47 – 51 depend on claim 46 and are so rejected.

4.2. Claims 57, and 62 recite the newly added limitation *wherein the step of*

extracting the second information does not include at least one of

receiving a plurality of data sections referring to the second type

descriptor, configuring the received data sections as a module, and

extracting file objects from the module, which has not been previously

disclosed by the applicant. Examiner notes that ¶ [59] of the disclosure is

contrary to applicant's amended limitation. In fact, ¶ [59] recites that "the data

sections are downloaded and <u>configured as a module</u>, and a file objects are

extracted and provided to a specific application". Furthermore, Figs. 1-6 are not

instructive as to the newly added limitation as indicated by the applicant.

4.2.1. Claims 58 – 61 depend on claim 57 and are so rejected.

4.2.2. Claims 63 – 66 depend on claim 62 and are so rejected.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
> made.

6. Claims 17- 36, 38- 40, 46, 47, and 49- 51 are rejected under 35 U.S.C. 103(a) as

being unpatentable over J.S. Hamilton. USPGPUB 2002/0087973 (hereinafter

"Hamilton") in view of Newell et al., "The ATSC Data Broadcasting Specification",

Stanford University course CS 448-a material for Winter 2000 (hereinafter "Newell"),

further in view of J.L. Huckins, USPN 7,032,239 (hereinafter "Huckins").

6.1. Regarding claim 17 Hamilton discloses **a method of operating a data**

broadcasting system that executes a data broadcast under a client-server

environment (a digital TV network using MPEG transport streams, as in Fig.

1A, with client STB and headend/ server transmitting/ serving information)**, the**

method comprising the steps of:

performing the following sequence of steps on the client device

while the individual data sections are being downloaded and extracted

(Hamilton inserts a signal to entertain the viewer while extracting/ downloading

the program the viewer is tuning to –channel was changed to- ¶[13]) ;

extracting advertising-image related data (advertising is

extracted from the local drive, or streamed through MPEG transport

stream ¶ [15].)**, the advertising-image related data** is extracted locally,

from transport stream, or internet.

　　　　　　　　downloading an advertisement image from the local drive,

transport stream, or internet ¶ [15], **and obtaining the advertisement**

image (as downloaded)**; and**

　　　　　　　　displaying the obtained advertisement image (¶ [15])**;**

　　　　　　cancelling the step of displaying the advertisement image after all

data sections of the specific application are downloaded and extracted by

the client device; ¶ [14], where the signal (advertisement) is terminated as soon

as the new program (channel) is available **; and**

　　　　　　　　executing the specific application on the client device (the tuned

program is displayed/ the desired application executed)**.**

Hamilton discloses that the signal to be displayed, in the event of a trigger such

as changing of the channel (¶ [14]), comprises static images, dynamic applets,

animation, and **<u>advertisements</u>** (¶¶ [16] - [19]). This advertisement may be

stored localy and/or delivered by the MPEG-2 transport stream (¶ [15]).

Hamilton computes the timing of the insertion signal (advertisement) as per Fig.

6, and insert an advertisement which is localy stored (known location) therefore

he is not explicit in providing a "**path**" to the advertisement ("**an advertisement**

image path" for locating and downloading of such advertisement **from the**

server and does not detail:

downloading at a client device a data service table (DST) relating to a specific application;

extracting information relating to the specific application from the DST on the client device;

downloading at the client device and from a server, individual data sections of the specific application based upon the extracted information;

extracting data from the downloaded individual data sections on the client device;

However, Newell discloses:

downloading at a client device a data service table (DST or as defined by ATSC and Newell Service Description Table, SDT**) relating to a specific application** (MPEG-2 transport is received at client device, e.g. STB. The SDT is extracted from PIDs of the transport stream, 5th page, 1st Col., items 2 and 3; Fig. 3, PIDx within MPEG-2 transport stream, see the NRT, PID, SDT connections)**;**

extracting information relating to the specific application from the DST on the client device (information from SDTs are extracted through Taps, 5th page, 1st Col., items 2 and 3)**;**

downloading at the client device and from a server, individual data sections of the specific application based upon the extracted information (5th page, 1st Col., items 2 and 3)**;**

　　　　　　extracting data from the downloaded individual data sections on the

client device; (as described in 4th page, 2nd Col., 3rd paragraph (Service

Description Framework), through 6th page, Col. 1, first 3 lines, and Fig. 3. The

NRT specifies network connections, designated in SDT, see dashed lines in Fig.

3, and as such specify the logical address/ **file system path** of the files/objects

(e.g. advertisements) for locating and extracting the files, such as advertising

image, or gaming applications, etc.).

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Hamilton, with Newell's teachings in

order to provide flexibility for locating files/applications anywhere in the network

while providing access to various local and remote applications.

The system of Hamilton and Newell discloses how a path to the appropriate data

broadcast is described via Associated Tag Descriptors (ATDs) {as shown in

Newell's 4th page, 2nd Col., 3rd paragraph (Service Description Framework),

through 6th page, Col. 1, first 3 lines, and Fig. 3. As further demonstrated by

Newell the MPEG-2 transport streams are monitored for PIDs, from which SDT,

NRT, and PMTs are extracted, tapped ,and matched in order to separate

programs, broadcast data (advertisements or other applications) and interactive

data (advertisements, games, other applications). Taps are pointers to the data.}

The system of Hamilton and Newell further discloses associating resources, tags, and applications (such as internet commerce), yet it does not provide an explicit example of a URL/ Internet address points to the address of a file, e.g. "**an advertisement image path**"), thereby not explicitly disclosing a downlaod of the said file (advertisement) **without configuring a module for extracting a directory object or a file object to display the advertisement image**.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g. advertisement or any other content type) description and connection information to decouple the content and its location address, thereby providing a path to the location of the content (e.g. the IP address in Fig. 3, element 39). The IP address provides the location of the file, and as such the receiving system does not have to configure a module for extracting a directory object (as the file is already present and available), thereby accessing said content **without configuring a module for extracting a directory object or a file object to display the advertisement image.** (See Abstract, Col. 5, line 51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton and Newell with Huckins' invention, in order to provide access to content location independent of any specific/ proprietary filing system requiring time consuming configuration/ set-ups.

6.1.1. Regarding claim 18 the system of Hamilton, Newell, and Huckins

discloses **wherein:**

   The step of downloading and advertisement image based on the

advertisement image path comprises **downloading multiple**

advertisement images based on the advertisement image path**, and**

   The step of displaying the downloaded advertisement image

comprises extracting and **composing a composite advertisement image**

from the multiple advertisement images. (In ¶¶ [16], [18], and [19],

Hamilton discloses creating, correlating, linking multiple ads together.)

6.1.2. Regarding claim 19 the system of Hamilton, Newell, and Huckins

discloses wherein the step of displaying the downloaded advertisement

image comprises:

   displaying one of a still image and a moving image (Hamilton's

advertisement/signal comprises static images, dynamic applets, animation,

and etc. ;¶¶ [16] - [19]).

6.1.3. Regarding claim 20, the system of Hamilton, Newell, and Huckins

discloses:

   Displaying a video broadcast on a full screen of the client

device, Hamilton presents the video broadcast on the full screen and

replaces it with the advertisement, for duration of the advertisement, in full screen mode.

The system of Hamilton, Newell, and Huckins is silent on **displaying the downloaded advertisement image over the video broadcast on a predetermined subset of the screen of the client device**.

However, official notice is taken that displaying multiple inputs on a screen, e.g. PIP, is a notoriously well known feature of video display devices. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton, Newell, and Huckins to include multiple display area (windows) each with a program/ advertisement in order to maximize the number of information / entertainment feed presentations to the viewer.

6.1.4. Regarding claim 21, the system of Hamilton, Newell, and Huckins discloses:

displaying one of an audio broadcast and a data broadcast on a screen of the client device (Hamilton's advertisement/signal comprises static images, dynamic applets, animation, etc. . . Furthermore the MPEG-2 stream contains video, audio and data. ¶¶ [14] - [19])**, wherein the step of displaying the downloaded advertisement image comprises:**

> **displaying the downloaded advertisement image on a full portion of the screen of the client device**, Hamilton's advertisement/signal becomes the only input to the display device therefore it has full coverage of the screen.

6.1.5. Regarding claim 22, the system of Hamilton, Newell, and Huckins discloses **wherein the step of downloading at the client device a data service table (DST) is initiated by one of:**

> **turning on power to the client device; and**

> **changing a channel at the client device**, as disclosed by Hamilton changing channels causes delay in acquiring/ tuning to programming data from a new channel, this is similar to turning the TV on, as the TV begins to tune to/ acquire the channel it was set on. Therefore both these triggers cause similar presentation of advertisement while the desired program is tuned to (¶¶ [12] and [14]).

6.2. Regarding claim 23 Hamilton discloses **a data broadcasting system of executing a data broadcast under a client-server environment** (Fig. 1A), **comprising:**

> **a network** (a digital TV network using MPEG transport streams);

a server (headend/ server transmitting/ serving information)**; and**

a client device (STB) **connected to the server via the network,**

wherein the client device is configured to:

perform the following sequence of functions while the individual data

sections are being downloaded and extracted (Hamilton inserts a signal to

entertain the viewer while extracting/ downloading the program the viewer is

tuning to –channel was changed to- ¶[13]) **;**

> **extract advertising-image related data** (advertising is extracted
>
> from the local drive, or streamed through MPEG transport stream ¶ [15].)**,**
>
> **the advertising-image related data** is extracted from a local drive,
>
> transport stream, or internet.

> **download an advertisement image from the** local drive, transport
>
> stream, or internet (¶ [15]), **and obtain the advertisement image** (as
>
> downloaded)**; and**

> **display the obtained advertisement image** (¶ [15])**;**

cancel the step of displaying the advertisement image after all data

sections of the specific application are downloaded and extracted; ¶ [14],

where the signal (advertisement) is terminated as soon as the new program

(channel) is available **; and**

execute the specific application (the tuned program is displayed/ the

desired application executed)**.**

Hamilton discloses that the signal to be displayed, in the event of a trigger such as changing of the channel (¶ [14]), comprises static images, dynamic applets, animation, and **advertisements** (¶¶ [16] - [19]). This advertisement may be stored localy and/or delivered by the MPEG-2 transport stream (¶ [15]).

Hamilton computes the timing of the insertion signal (advertisement) as per Fig. 6, and insert an advertisement which is localy stored (known location) therefore he is not explicit in providing a "path" to the advertisement (**"an advertisement image path"** for locating and downloading of such advertisement **from the server** and does not detail client device configured to:

download, from the server, a data service table (DST) relating to a specific application;

extract information relating to the specific application from the DST;

download, from the server, individual data sections of the specific application based upon the extracted information;

extract data from the downloaded individual data sections;

However, Newell, in analogous art, discloses a client device configured to:

download, from the server, a data service table (DST or as defined by ATSC and Newell Service Description Table, SDT**) relating to a specific application** (MPEG-2 transport is received at client device, e.g. STB. The SDT is

extracted from PIDs of the transport stream, 5th page, 1st Col., items 2 and 3;

Fig. 3, PIDx within MPEG-2 transport stream, see the NRT, PID, SDT

connections);

extract information relating to the specific application from the DST

on the client device (information from SDTs are extracted through Taps, 5th

page, 1st Col., items 2 and 3);

download, from the server, individual data sections of the specific

application based upon the extracted information (5th page, 1st Col., items 2

and 3);

extract data from the downloaded individual data sections; (as

described in 4th page, 2nd Col., 3rd paragraph (Service Description Framework),

through 6th page, Col. 1, first 3 lines, and Fig. 3. The NRT specifies network

connections, designated in SDT, see dashed lines in Fig. 3, and as such specify

the logical address/ **file system path** of the files/objects for locating and

extracting the files, such as advertising image, or gaming applications, etc.).

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Hamilton, with Newell's teachings in

order to provide flexibility for locating files/applications anywhere in the network

while providing access to various local and remote applications.

The system of Hamilton and Newell discloses how a path to the appropriate data

broadcast is described via Associated Tag Descriptors (ATDs) {as shown in

Newell's 4th page, 2nd Col., 3rd paragraph (Service Description Framework),

through 6th page, Col. 1, first 3 lines, and Fig. 3. As further demonstrated by

Newell the MPEG-2 transport streams are monitored for PIDs, from which SDT,

NRT, and PMTs are extracted, tapped ,and matched in order to separate

programs, broadcast data (advertisements or other applications) and interactive

data (advertisements, games, other applications). Taps are pointers to the data.}

The system of Hamilton and Newell further discloses associating resources, tags,

and applications (such as internet commerce), yet it does not provide an explicit

example of a URL/ Internet address points to the address of a file, e.g. "**an**

advertisement image path"), thereby not explicitly disclosing a downlaod of the

said file (advertisement) **without configuring a module for extracting a**

directory object or a file object to display the advertisement image.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g.

advertisement or any other content type) description and connection information

to decouple the content and its location address, thereby providing a path to the

location of the content (e.g. the IP address in Fig. 3, element 39). The IP address

provides the location of the file, and as such the receiving system does not have

to configure a module for extracting a directory object (as the file is already

present and available), thereby accessing said content **without configuring a**

module for extracting a directory object or a file object to display the advertisement image. (See Abstract, Col. 5, line 51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton and Newell with Huckins' invention, in order to provide access to content location independent of any specific/ proprietary filing system requiring time consuming configuration/ set-ups.

6.2.1. Regarding claim 24, the system of Hamilton, Newell, and Huckins discloses **wherein the client device is configured to:**

   download multiple advertisement images from the advertisement image path**, and**

   extract and compose a composite advertisement image from the multiple advertisement images as the advertisement image. (In ¶¶ [16], [18], and [19], Hamilton discloses creating, correlating, linking multiple ads together.)

6.2.2. Regarding claim 25, the system of Hamilton, Newell, and Huckins discloses **wherein the client device is configured to display one of a still image and a moving image as the advertisement image** (Hamilton's advertisement/signal comprises static images, dynamic applets, animation,

and etc.; ¶¶ [16] - [19]).

6.2.3. Regarding claim 26, the system of Hamilton, Newell, and Huckins

discloses **wherein the client device is configured to**:

    display a video broadcast on a full screen of the client device,

Hamilton presents the video broadcast on the full screen and replaces it with

the advertisement, for duration of the advertisement, in full screen mode.

The system of Hamilton, Newell, and Huckins is silent on **displaying the**

downloaded advertisement image over the video broadcast on a

predetermined subset of the screen of the client device.

However, official notice is taken that displaying multiple inputs on a screen,

e.g. PIP, is a notoriously well known feature of video display devices.

Therefore, it would have been obvious to one of ordinary skill in the art, at

the time of invention, to modify the system of Hamilton, Newell, and Huckins

to include multiple display area (windows) each with a program/

advertisement in order to maximize the number of information /

entertainment feed presentations to the viewer.

6.2.4. Regarding claim 27, the system of Hamilton, Newell, and Huckins

discloses **wherein the client device is configured to**:

display one of an audio broadcast and a data broadcast on a screen of the client device (Hamilton's advertisement/signal comprises static images, dynamic applets, animation, etc. . Furthermore the MPEG-2 stream contains video, audio and data. ¶¶ [14] - [19])**, and**

display the downloaded advertisement image on a full portion of the screen of the client device, Hamilton's advertisement/signal becomes the only input to the display device therefore it has full coverage of the screen.

6.2.5. Regarding claim 28, the system of Hamilton, Newell, and Huckins discloses **wherein the client device is configured to initiate a data service table (DST) downloaded in response to one of:**

turning on power to the client device; and

changing a channel at the client device, as disclosed by Hamilton changing channels causes delay in acquiring/ tuning to programming data from a new channel, this is similar to turning the TV on, as the TV begins to tune to/ acquire the channel it was set on. Therefore both these triggers cause similar presentation of advertisement while the desired program is tuned to (¶¶ [12] and [14]).

6.3. Regarding claim 29 Hamilton discloses **a client device** (STB) **in a data broadcasting system of executing a data broadcast under a client-server environment** (Fig. 1A)**, the data broadcasting system including a network** (a digital TV network using MPEG transport streams) **and a server** (headend/ server transmitting/ serving information) **connected to the client via the network** (as in Fig. 1A)**, the client device being configured to:**

perform the following sequence of functions while the individual data sections are being downloaded and extracted (Hamilton inserts a signal to entertain the viewer while extracting/ downloading the program the viewer is tuning to –channel was changed to- ¶[13]) **;**

extract advertising-image related data (advertising is extracted from the local drive, or streamed through MPEG transport stream ¶ [15].)**, the advertising-image related data** is extracted from a local drive, transport stream, or internet.

download an advertisement image from the local drive, transport stream, or internet ¶ [15]**, and obtain the advertisement image** (as downloaded)**; and**

display the obtained advertisement image (¶ [15])**; cancel the step of displaying the advertisement image after all data sections of the specific application are downloaded and extracted;** ¶ [14],

where the signal (advertisement) is terminated as soon as the new program

(channel) is available **; and**

      execute the specific application (the tuned program is displayed/ the

desired application executed**).**

Hamilton discloses that the signal to be displayed, in the event of a trigger such

as changing of the channel (¶ [14]), comprises static images, dynamic applets,

animation, and **<u>advertisements</u>** (¶¶ [16] - [19]). This advertisement may be

stored localy and/or delivered by the MPEG-2 transport stream (¶ [15]).

Hamilton computes the timing of the insertion signal (advertisement) as per Fig.

6, and insert an advertisement which is localy stored (known location) therefore

he is not explicit in providing a "path" to the advertisement (**"an advertisement**

image path" for locating and downloading of such advertisement **from the**

server and does not detail client device configured to:

      download, at the client device and from the server, a data service

table (DST) relating to a specific application;

      extract information relating to the specific application from the DST;

      download, from the server, individual data sections of the specific

application based upon the extracted information;

      extract data from the downloaded individual data sections;

However, Newell, in analogous art, discloses a client device configured to:

download, at the client device and from the server, a data service table (DST or as defined by ATSC and Newell Service Description Table, SDT**) relating to a specific application** (MPEG-2 transport is received at client device, e.g. STB. The SDT is extracted from PIDs of the transport stream, 5th page, 1st Col., items 2 and 3; Fig. 3, PIDx within MPEG-2 transport stream, see the NRT, PID, SDT connections)**;**

extract information relating to the specific application from the DST on the client device (information from SDTs are extracted through Taps, 5th page, 1st Col., items 2 and 3)**;**

download, from the server, individual data sections of the specific application based upon the extracted information (5th page, 1st Col., items 2 and 3)**;**

extract data from the downloaded individual data sections; (as described in 4th page, 2nd Col., 3rd paragraph (Service Description Framework), through 6th page, Col. 1, first 3 lines, and Fig. 3. The NRT specifies network connections, designated in SDT, see dashed lines in Fig. 3, and as such specify the logical address/ **file system path** of the files/objects for locating and extracting the files, such as advertising image, or gaming applications, etc.).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton, with Newell's teachings in order to provide flexibility for locating files/applications anywhere in the network while providing access to various local and remote applications.

The system of Hamilton and Newell discloses how a path to the appropriate data broadcast is described via Associated Tag Descriptors (ATDs) {as shown in Newell's 4th page, 2nd Col., 3rd paragraph (Service Description Framework), through 6th page, Col. 1, first 3 lines, and Fig. 3. As further demonstrated by Newell the MPEG-2 transport streams are monitored for PIDs, from which SDT, NRT, and PMTs are extracted, tapped ,and matched in order to separate programs, broadcast data (advertisements or other applications) and interactive data (advertisements, games, other applications). Taps are pointers to the data.}

The system of Hamilton and Newell further discloses associating resources, tags, and applications (such as internet commerce), yet it does not provide an explicit example of a URL/ Internet address points to the address of a file, e.g. "**an advertisement image path**"), thereby not explicitly disclosing a downlaod of the said file (advertisement) **without configuring a module for extracting a directory object or a file object to display the advertisement image**.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g. advertisement or any other content type) description and connection information to decouple the content and its location address, thereby providing a path to the

location of the content (e.g. the IP address in Fig. 3, element 39). The IP address

provides the location of the file, and as such the receiving system does not have

to configure a module for extracting a directory object (as the file is already

present and available), thereby accessing said content **without configuring a**

module for extracting a directory object or a file object to display the

advertisement image. (See Abstract, Col. 5, line 51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Hamilton and Newell with Huckins'

invention, in order to provide access to content location independent of any

specific/ proprietary filing system requiring time consuming configuration/ set-

ups.

6.3.1. Regarding claim 30, the system of Hamilton, Newell, and Huckins

    discloses **wherein the client device further configured to:**

        download multiple advertisement images from the advertisement

    image path**, and**

        extract and compose a composite advertisement image from the

    multiple advertisement images as the advertisement image. (In ¶¶ [16],

    [18], and [19], Hamilton discloses creating, correlating, linking multiple ads

    together.)

6.3.2. Regarding claim 31, the system of Hamilton, Newell, and Huckins

discloses **the client device further configured to display one of a still**

image and a moving image as the advertisement image (Hamilton's

advertisement/signal comprises static images, dynamic applets, animation,

and etc.; ¶¶ [16] - [19])

6.3.3. Regarding claim 32, the system of Hamilton, Newell, and Huckins

discloses **the client device further configured to**:

display a video broadcast on a full screen of the client device,

Hamilton presents the video broadcast on the full screen and replaces it with

the advertisement, for duration of the advertisement, in full screen mode.

The system of Hamilton, Newell, and Huckins is silent on **display**ing **the**

downloaded advertisement image over the video broadcast on a

predetermined subset of the screen of the client device.

However, official notice is taken that displaying multiple inputs on a screen,

e.g. PIP, is a notoriously well known feature of video display devices.

Therefore, it would have been obvious to one of ordinary skill in the art, at

the time of invention, to modify the system of Hamilton, Newell, and Huckins

to include multiple display area (windows) each with a program/

advertisement in order to maximize the number of information /

entertainment feed presentations to the viewer.

6.3.4. Regarding claim 33, the system of Hamilton, Newell, and Huckins

discloses **the client device further configured to**:

    display one of an audio broadcast and a data broadcast on a

screen of the client device (Hamilton's advertisement/signal comprises

static images, dynamic applets, animation, etc. . Furthermore the MPEG-2

stream contains video, audio and data. ¶¶ [14] - [19])**, and**

    display the downloaded advertisement image on a full portion of

the screen of the client device, Hamilton's advertisement/signal becomes

the only input to the display device therefore it has full coverage of the

screen.

6.3.5. Regarding claim 34, the system of Hamilton, Newell, and Huckins

discloses **the client device further configured to initiate a data service**

table (DST) downloaded in response to one of:

    turning on power to the client device; and

    changing a channel at the client device, as disclosed by Hamilton

changing channels causes delay in acquiring/ tuning to programming data

from a new channel, this is similar to turning the TV on, as the TV begins to

tune to/ acquire the channel it was set on. Therefore both these triggers

cause similar presentation of advertisement while the desired program is

tuned to (¶¶ [12] and [14]).

6.4. Regarding claim 35, Hamilton discloses **a method of processing a broadcast**

application in a client device in a data broadcasting system (Fig. 1A,

Abstract)**, the method comprising the steps of:**

Receiving (STB in Fig. 1A)**, from a server** (Headend)**, an advertisement**

image file and application information relating to a specific application

(advertisements related to a specific channel/ program/application are received

at the STB receiver. advertising is extracted from the local drive, or streamed

through MPEG transport stream ¶ [15])**;**

determining if the application information includes advertisement

information (application/ program information are linked with the appropriate

advertisement/ signals as in ¶ [19]. The position/ timing of such advertisements

are determined as in ¶¶ [38] - [40])**;**

extracting the received advertisement image if the application

information includes the advertisement information (application/ program

information are linked with the appropriate advertisement/ signals as in ¶ [19].

The position/ timing of such advertisements are determined as in ¶¶ [38] - [40])**,**

and obtaining the advertisement image (as downloaded/extracted)**;**

outputting the obtained advertisement image on a screen (¶ [15]); **and**

executing the specific application after the outputting step (the tuned program is displayed/ the desired application executed)**.**

Hamilton discloses that the signal to be displayed, in the event of a trigger such as changing of the channel (¶ [14]), comprises static images, dynamic applets, animation, and **advertisements** (¶¶ [16] - [19]). This advertisement may be stored localy and/or delivered by the MPEG-2 transport stream (¶ [15]).

Hamilton computes the timing of the insertion signal (advertisement) as per Fig. 6, and insert an advertisement which is localy stored (known location) therefore he is not explicit in providing "**an advertisement image path**" for locating and downloading/ extracting of such advertisement from a server.

However, Newell discloses ATSC data broadcasting specification. As reflected in Newell's Abstract (1st page), ATSC specifies the use of MPEG-2 for the packetization and **multiplexing** of compressed audio/video and data **signals**. Newell further provides examples of such broadcast servcies to include enhanced television, hotspots,HTML, and magazines, any of which are notoriously well known to include **images/ advertisements**. Therefore, Newell

dislcoses inserting/ multiplexing data (image/ advertisement) signals within the stream of programming (audio/ video) signals. (Also see basic goals of ATSC data broadcasting, 2nd page, 1st Col., 2nd paragraph).

Newell further discloses how a path to the appropriate data broadcast is described via Associated Tag Descriptors (ATDs), as shown in 4th page, 2nd Col., 3rd paragraph (Service Description Framework), through 6th page, Col. 1, first 3 lines, and Fig. 3. As demonstrated by Newell the MPEG-2 transport streams are monitored for PIDs, from which SDT, NRT, and PMTs are extracted, tapped ,and matched in order to separate programs, broadcast data (advertisements or other applications) and interactive data (advertisements, games, other applications). Taps are pointers to the data. For example, a URL/ Internet address points to a server containing a file (when the file is an advertisemnet, this specifies a path to the advertisement, therefore, "**an advertisement image path**") which is then extracted / received by the receiver.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton, with Newell's teachings in order to provide flexibility for locating files/applications anywhere in the network.

The system of Hamilton and Newell does not explicitly disclose downlaod of the said file (advertisement) **without configuring a module for extracting a directory object or a file object to display the advertisement image**.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g. advertisement or any other content type) description and connection information to decouple the content and its location address, thereby providing a path to the location of the content (e.g. the IP address in Fig. 3, element 39). The IP address provides the location of the file, and as such the receiving system does not have to configure a module for extracting a directory object (as the file is already present and available), thereby accessing said content **without configuring a module for extracting a directory object or a file object to display the advertisement image.** (See Abstract, Col. 5, line 51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton and Newell with Huckins' invention, in order to provide access to content location independent of any specific/ proprietary filing system requiring time consuming configuration/ set-ups.

6.4.1. Regarding claim 36, Hamilton discloses **wherein the advertisement image file includes one of a still image and a moving image,**

(advertisement/signal comprises static images, dynamic applets, animation, and etc.; ¶¶ [16] - [19]).

6.4.2. Regarding claim 38, Hamilton discloses **outputting the advertisement image after receiving a turn on signal or a channel change signal from a user**. As disclosed by Hamilton changing channels causes delay in acquiring/ tuning to programming data from a new channel, this is similar to turning the TV on, as the TV begins to tune to/ acquire the channel it was set on. Therefore both these triggers cause similar presentation of advertisement while the desired program is tuned to (¶¶ [12] and [14]).

6.4.3. Regarding claim 39, Hamilton discloses **outputting an advertisement image** (¶ [15]) **for a predetermined time period** (as in ¶ [14], where it is determined to whether to show the advertisement in full while delaying the presentation of the program, or terminate the advertisement as soon as the program is made available)**.**

6.4.3.1. Regarding claim 40, the system of Hamilton, Newell, and Huckins discloses:

receiving a plurality of data sections of the specific application (Newell, Page 4, DSM-CC Data Carousel were data is broken into sections and delivered)**;**

configuring the plurality of data sections as a module (said sections are reconfigured/ reconstituted into modules for consumption by the receiver/ application) **;**

extracting file objects (objects/ files are associated with content/ programs/ applications)**; and**

providing the file objects to the application (See Service Description Framework, pages 4 and 5, where files/data are associated with programs/ applications) **for the predetermined time period** (Hamilton: ¶ [14], where it is determined to whether to show the advertisement in full while delaying the presentation of the program, or terminate the advertisement as soon as the program is made available)**.**

6.5. Regarding claim 46, Hamilton discloses **a client device** (STB) **in a data broadcasting system for executing a data broadcast application under a client-server environment** (Fig. 1A)**, the data broadcasting system including a network** (a digital TV network using MPEG transport streams) **and**

a server (headend/ server transmitting/ serving information) **connected to the client via the network** (as in Fig. 1A)**, the client device being configured to:**

receive (STB in Fig. 1A)**, from the server** (Headend)**, an advertisement image file and application information relating to a specific application** (advertisements related to a specific channel/ program/application are received at the STB receiver. advertising is extracted from the local drive, or streamed through MPEG transport stream ¶ [15])**;**

determine if the application information includes advertisement information (application/ program information are linked with the appropriate advertisement/ signals as in ¶ [19]. The position/ timing of such advertisements are determined as in ¶¶ [38] - [40])**;**

extract the received advertisement image if the application information includes the advertisement information (application/ program information are linked with the appropriate advertisement/ signals as in ¶ [19]. The position/ timing of such advertisements are determined as in ¶¶ [38] - [40])**, and obtain the advertisement image** (as downloaded/ extracted)**;**

output the obtained advertisement image on a screen (¶ [15])**; and**

execute the specific application after the advertisement image is output (the tuned program is displayed/ the desired application executed)**.**

Hamilton discloses that the signal to be displayed, in the event of a trigger such as changing of the channel (¶ [14]), comprises static images, dynamic applets, animation, and **advertisements** (¶¶ [16] - [19]). This advertisement may be stored localy and/or delivered by the MPEG-2 transport stream (¶ [15]).

Hamilton computes the timing of the insertion signal (advertisement) as per Fig. 6, and insert an advertisement which is localy stored (known location) therefore he is not explicit in providing "**an advertisement image path**" for locating and downloading/ extracting of such advertisement from a server.

However, Newell discloses ATSC data broadcasting specification. As reflected in Newell's Abstract (1st page), ATSC specifies the use of MPEG-2 for the packetization and **multiplexing** of compressed audio/video and data **signals**. Newell further provides examples of such broadcast servcies to include enhanced television, hotspots,HTML, and magazines, any of which are notoriously well known to include **images/ advertisements**. Therefore, Newell dislcoses inserting/ multiplexing data (image/ advertisement) signals within the stream of programming (audio/ video) signals. (Also see basic goals of ATSC data broadcasting, 2nd page, 1st Col., 2nd paragraph).

Newell further discloses how a path to the appropriate data broadcast is described via Associated Tag Descriptors (ATDs), as shown in 4th page, 2nd Col., 3rd paragraph (Service Description Framework), through 6th page, Col. 1, first 3 lines, and Fig. 3. As demonstrated by Newell the MPEG-2 transport streams are monitored for PIDs, from which SDT, NRT, and PMTs are extracted, tapped ,and matched in order to separate programs, broadcast data (advertisements or other applications) and interactive data (advertisements, games, other applications). Taps are pointers to the data. For example, a URL/ Internet address points to a server containing a file (when the file is an advertisemnet, this specifies a path to the advertisement, therefore, "**an advertisement image path**") which is then extracted / received by the receiver.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton, with Newell's teachings in order to provide flexibility for locating files/applications anywhere in the network.

The system of Hamilton and Newell does not explicitly disclose downlaod of the said file (advertisement) **without configuring a module for extracting a directory object or a file object to display the advertisement image**.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g.

advertisement or any other content type) description and connection information

to decouple the content and its location address, thereby providing a path to the

location of the content (e.g. the IP address in Fig. 3, element 39). The IP address

provides the location of the file, and as such the receiving system does not have

to configure a module for extracting a directory object (as the file is already

present and available), thereby accessing said content **without configuring a**

module for extracting a directory object or a file object to display the

advertisement image. (See Abstract, Col. 5, line 51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Hamilton and Newell with Huckins'

invention, in order to provide access to content location independent of any

specific/ proprietary filing system requiring time consuming configuration/ set-

ups.

6.5.1. Regarding claim 47, Hamilton discloses **wherein the advertisement**

image file includes one of a still image and a moving image,

(advertisement/signal comprises static images, dynamic applets, animation,

and etc.; ¶¶ [16] - [19]).

6.5.2. Regarding claim 49, Hamilton discloses **outpu**tting **the advertisement image after receiving a turn on signal or a channel change signal from a user**. As disclosed by Hamilton changing channels causes delay in acquiring/ tuning to programming data from a new channel, this is similar to turning the TV on, as the TV begins to tune to/ acquire the channel it was set on. Therefore both these triggers cause similar presentation of advertisement while the desired program is tuned to (¶¶ [12] and [14]).

6.5.3. Regarding claim 50, Hamilton discloses **outputting an advertisement image** (¶ [15]) **for a predetermined time period** (as in ¶ [14], where it is determined to whether to show the advertisement in full while delaying the presentation of the program, or terminate the advertisement as soon as the program is made available)**.**

6.5.4. Regarding claim 51, the system of Hamilton, Newell, and Huckins discloses:

receiving a plurality of data sections of the specific application

(Newell, Page 4, DSM-CC Data Carousel were data is broken into sections

and delivered)**;**

configuring the plurality of data sections as a module (said

sections are reconfigured/ reconstituted into modules for consumption by the

receiver/ application) **;**

extracting file objects (objects/ files are associated with content/

programs/ applications)**; and**

providing the file objects to the application (See Service

Description Framework, pages 4 and 5, where files/data are associated with

programs/ applications) **for the predetermined time period** (Hamilton: ¶

[14], where it is determined to whether to show the advertisement in full

while delaying the presentation of the program, or terminate the

advertisement as soon as the program is made available)**.**

7. Claims 37, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hamilton, in view of Newell, further in view of Huckins, in further view of Newell et

al., "Overview of The ATSC Data Broadcast Service Specification Version 1.0",

Sharp/ Intel Presentation, May 6, 1999 (hereinafter "Newell'99").

7.1. Regarding claim 37, the system of Hamilton, Newell, and Huckins discloses

descriptors/ identifiers for locating advertisements and associating the same with

programs (Newell: as shown in 4th page, 2nd Col., 3rd paragraph (Service

Description Framework), through 6th page, Col. 1, first 3 lines, and Fig. 3. Also

descriptor tags in ATSC (pages 32-33, table 15.6) shows the syntax for the

Service Data Table (SDT) Byte Structure (also shown in applicant's disclosure,

Fig. 2, with addition of description to "service_private_data_byte"). The

"service_private_data_byte" is reserved for recovering/indicating Network

addresses such as Network Resource Tables (NRTs, including network

addresses, URLs, etc., also shown in Fig. 12.1. ATSC reference was provided in

the Office Action of 2/14/2008. The system of Hamilton and Newell is not explicit

in that the descriptor includes **an advertisement image name**.

However, Newell'99 discloses that resource descriptors may contain association

tags, data stream identifiers, or internet addresses (URL, resource name) of an

interactive service (slide 19).

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Hamilton, Newell, and Huckins with

Newell'99 in order to identify an advertisement (resource) by name for ease and

speed of recognition.

7.2. Claim 48 is rejected by the same analysis as claim 37.

8. Claims 57, 58, 61- 63, and 66 are rejected under 35 U.S.C. 103(a) as being

unpatentable Hamilton in view of Applicant's Admitted Prior Art, as reflected in

applicant's disclosure ¶¶ [2] - [30], and Fig.1 (hereinafter "AAPA"), further in view of

Huckins.

8.1. Regarding claim 57, Hamilton discloses **a method of operating a data**

   broadcasting system that executes a data broadcast under a client-server

   environment (a digital TV network using MPEG transport streams, as in Fig.

   1A, with client STB and headend/ server transmitting/ serving information)**, the**

   method comprising:

        receiving, at a client device, an MPEG transport stream **including a**

   first type descriptor (program selected by the viewer being downloaded) **and a**

   second type descriptor (Hamilton's $2^{nd\,t}$ type descriptor is a signal, triggered by

   e.g. channel change, which launches the advertisement)**;;**

        extracting a first information (program/ data service selected) **referring**

   to the first type descriptor and extracting a second information (e.g.

   advertisement) **referring to the second type descriptor; and**

displaying the extracted second information (advertisement) **on a
screen prior to the extracted first information** (advertisement plays while the
program is being downloaded)**.** See ¶¶ [13]-[15], and [32]-[40])

Hamilton is silent on receiving at the client **a data service table (DST)** containing
descriptors, and

> **wherein the step of extracting the first information includes**
>
> > **a first step of receiving a plurality of data sections referring to
> > the first type descriptor,**
> >
> > **a second step of configuring the plurality of data sections as a
> > module, and**
> >
> > **a third step of extracting file objects from the module,**

However, AAPA admits that the receiver receives **a data service table (DST)** (¶
[17] containing descriptors (Applicant's Figure 2 contains the ATSC Standard, as
supplied to the applicants on 2/14/2008, where by content descriptors, e.g.
descriptor(), are provided, see also pages 32-33 of the said standard), and

> **wherein the step of extracting the first information includes** (Fig. 1)
>
> > **a first step of receiving a plurality of data sections referring to
> > the first type descriptor** (Fig. 1, SECTION DSI, DII, DDB… elements)**,**
> >
> > **a second step of configuring the plurality of data sections as a
> > module** (Fig. 1, MODULE, DSI, DII, …. elements)**, and**

a third step of extracting file objects from the module (Fig. 1,

OBJECT, DIR, DIR, ... elements)**, See ¶¶ [20]- [30].

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Hamilton with the AAPA in order to take

advantage of the carousel capability of the ATSC standards and download

services methodically over limited bandwidths.

The system of Hamilton and AAPA does not explicitly disclose:

wherein the step of extracting the second information does not

include at least one of receiving a plurality of data sections referring to the

second type descriptor, configuring the received data section as amodule,

and extracting file objects from the module.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g.

advertisement or any other content type) description and connection information

to decouple the content and its location address, thereby providing a path to the

location of the content (e.g. the IP address in Fig. 3, element 39). The IP address

provides the location of the file, and as such the receiving system does not have

to configure a module for extracting a directory object (as the file is already

present and available), thereby disclosing **extracting the second information**

(e.g. advertisement) **does not include at least one of receiving a plurality of**

data sections referring to the second type descriptor, configuring the received data section as amodule, and extracting file objects from the module. (See Abstract, Col. 5, line 51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton and AAPA with Huckins' invention, in order to provide access to content location independent of any specific/ proprietary filing system requiring time consuming configuration/ set-ups.

8.1.1. Claim 58 is rejected as claim 57 (first type descriptor is related to a specific application, e.g. program; and the second type descriptor is an advertisement image as analyzed).

8.2. Regarding claim 61, the system of Hamilton, and AAPA discloses:

displaying a video broadcast on a full screen of the client device,
Hamilton presents the video broadcast on the full screen and replaces it with the advertisement, for duration of the advertisement, in full screen mode.

The system of Hamilton and AAPA is silent on **displaying the downloaded advertisement image over the video broadcast on a predetermined subset of the screen of the client device**.

However, official notice is taken that displaying multiple inputs on a screen, e.g. PIP, is a notoriously well known feature of video display devices. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton, Newell, and Huckins to include multiple display area (windows) each with a program/ advertisement in order to maximize the number of information / entertainment feed presentations to the viewer.

8.3. Regarding claim 62, Hamilton discloses **a client device in a data broadcasting system of executing a data broadcast under a client-server environment** (a digital TV network using MPEG transport streams, as in Fig. 1A, with client STB and headend/ server transmitting/ serving information)**, the client device being configured to:**

receive **a first type descriptor** (program selected by the viewer being downloaded) **and a second type descriptor** (Hamilton's $2^{nd\ t}$ type descriptor is a signal, triggered by e.g. channel change, which launches the advertisement);;

extract a first information (program/ data service selected) **referring to the first type descriptor and extract a second information** (e.g. advertisement) **referring to the second type descriptor; and**

display the extracted second information (advertisement) **on a screen prior to the extracted first information** (advertisement plays while the program is being downloaded**).**

Hamilton is silent on receiving at the client **a data service table (DST)** containing descriptors, and

wherein the step of extracting the first information includes

a first step of receiving a plurality of data sections referring to the first type descriptor,

a second step of configuring the plurality of data sections as a module, and

a third step of extracting file objects from the module,

However, AAPA admits that the receiver receives **a data service table (DST)** (¶ [17] containing descriptors (Applicant's Figure 2 contains the ATSC Standard, as supplied to the applicants on 2/14/2008, where by content descriptors, e.g. **descriptor()**, are provided, see also pages 32-33 of the said standard), and

wherein the step of extracting the first information includes (Fig. 1)

a first step of receiving a plurality of data sections referring to the first type descriptor (Fig. 1, SECTION DSI, DII, DDB... elements),

a second step of configuring the plurality of data sections as a module (Fig. 1, MODULE, DSI, DII, ... elements), **and**

a third step of extracting file objects from the module (Fig. 1, OBJECT, DIR, DIR, ... elements)**,** See ¶¶ [20]- [30].

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton with the AAPA in order to take advantage of the carousel capability of the ATSC standards and download services methodically over limited bandwidths.

The system of Hamilton and AAPA does not explicitly disclose:

wherein the step of extracting the second information does not include at least one of receiving a plurality of data sections referring to the second type descriptor, configuring the received data section as a module, and extracting file objects from the module.

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g. advertisement or any other content type) description and connection information to decouple the content and its location address, thereby providing a path to the location of the content (e.g. the IP address in Fig. 3, element 39). The IP address

provides the location of the file, and as such the receiving system does not have to configure a module for extracting a directory object (as the file is already present and available), thereby disclosing **extracting the second information** (e.g. advertisement) **does not include at least one of receiving a plurality of data sections referring to the second type descriptor, configuring the received data section as amodule, and extracting file objects from the module.** (See Abstract, Col. 5, line 51 through Col. 6, line 63).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the system of Hamilton and AAPA with Huckins' invention, in order to provide access to content location independent of any specific/ proprietary filing system requiring time consuming configuration/ set-ups.

8.4. Claim 63 is rejected as claim 62 (first type descriptor is related to a specific application, e.g. program; and the second type descriptor is an advertisement image as analyzed).

8.5. Regarding claim 66, the system of Hamilton, and AAPA discloses:

displaying a video broadcast on a full screen of the client device,

Hamilton presents the video broadcast on the full screen and replaces it with the

advertisement, for duration of the advertisement, in full screen mode.

The system of Hamilton and AAPA is silent on **displaying the downloaded**

advertisement image over the video broadcast on a predetermined subset

of the screen of the client device.

However, official notice is taken that displaying multiple inputs on a screen, e.g.

PIP, is a notoriously well known feature of video display devices. Therefore, it

would have been obvious to one of ordinary skill in the art, at the time of

invention, to modify the system of Hamilton, Newell, and Huckins to include

multiple display area (windows) each with a program/ advertisement in order to

maximize the number of information / entertainment feed presentations to the

viewer.

9. Claims 59, 60, 64, and 65 are rejected under 35 U.S.C. 103(a) as being

unpatentable Hamilton in view of AAPA, further in view of Newell, in further view of

Huckins.

9.1. Regarding claim 59, the system of Hamilton and AAPA is silent on 59 **the**

second type descriptor provides an advertisement image path.

However, Newell disclose discloses how a path to the appropriate data broadcast

is described via Associated Tag Descriptors (ATDs) {as shown in Newell's 4th

page, 2nd Col., 3rd paragraph (Service Description Framework), through 6th page,

Col. 1, first 3 lines, and Fig. 3. As further demonstrated by Newell the MPEG-2

transport streams are monitored for PIDs, from which SDT, NRT, and PMTs are

extracted, tapped ,and matched in order to separate programs, broadcast data

(advertisements or other applications) and interactive data (advertisements,

games, other applications). Taps are pointers to the data.}

Therefore, it would have been obvious to one of ordinary skill in the art, to modify

the system of Hmailton and AAPA with Newell's invention, in order to use the tap

structure of ATSC for associating contnet/ applications with locations, such as

servers.

The system of Hamilton, AAPA, Newell further discloses associating resources,

tags, and applications (such as internet commerce), yet it does not provide an

explicit example of a URL/ Internet address points to the address of a file, e.g.

"**an advertisement image path**").

However, Huckins discloses (Figs. 3 and 5) how to utilize the content (e.g.

advertisement or any other content type) description and connection information

to decouple the content and its location address, thereby providing a path (**an advertisement image path**) to the location of the content (e.g. the IP address in Fig. 3, element 39). (See Abstract, Col. 5, line 51 through Col. 6, line 63).

9.2. Regarding claim 60, the system of Hamilton, AAPA, Newell, and Huckins in silent on **composing a composite advertisement image from the multiple advertisement image files**.

However, official notice is taken that it was nortoriously well known at the time of invention to form composite adevrtisemnsts in order to adjust/fill the available time with as many advertisements as necessary.

9.3. Claim 64 is rejected by the same analysis as claim 59.

9.4. Claim 65 is rejected by the same analysis as claim 60.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. MARANDI whose telephone number is (571)270-1843. The examiner can normally be reached on 8:00 AM- 5:00 PM M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

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